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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

Before the Examiner:

Achtermann et al.

Todd, Gregory

Serial No.: 09/438,436

Group Art Unit: 2157

Filed: November 12, 1999

IBM Corporation

Title: AN APPARATUS FOR

Intellectual Property Law

CONNECTION MANAGEMENT AND THE METHOD THEREFOR

11400 Burnet Road Austin, Texas 78758

APPEAL BRIEF

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Technology Center 2100

I. REAL PARTY IN INTEREST

The real party in interest is International Business Machines Corporation, which is the assignee of the entire right, title and interest in the above-identified patent application.

CERTIFICATION UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on May 14, 2004.

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(Printed name of person certifying)

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellants, Appellants' legal representative or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-33 are pending in the Application. Claims 1-33 stand rejected.

IV. STATUS OF AMENDMENTS

Appellants' response to the Office Action having the mailing date of September 30, 2003, has been considered, but the Examiner indicated that it did not place the application in condition for allowance because Appellants' arguments were deemed unpersuasive.

V. SUMMARY OF INVENTION

Present day data processing systems are often configured in large multi-user networks. Specification, page 3, lines 2-3. Management of such networks may typically include the need to transfer bulk data to an endpoint system from a source system (or, simply, "a source") and the collection of information, for example, error reports from a multiplicity of endpoints systems (or, simply, "endpoints"). Specification, page 3, lines 3-6.

Such large data transfers may occur within a network, for example, to distribute software updates. Specification, page 3, lines 7-8. The system administrator may need to allocate a specific period of time for the data transfer to more efficiently utilize network resources. Specification, page 3, lines 8-9. This may typically occur when the communication load on the system is lowest, usually at night when most endpoint users are not working at their stations. Specification, page 3, lines 9-11. The system administrator may load the bulk data and the corresponding

transfer instructions onto the network system's source, or server, in preparation for the transfer. Specification, page 3, lines 11-13. At the predetermined time set by the administrator, the server will push the data while ensuring that the bulk data is successfully transferred to each of the desired endpoint locations. Specification, page 3, lines 13-16. However, during the transfer a portion of the system server is dedicated to the data transfer and thus unavailable for other networking tasks. Specification, page 3, lines 16-17. Moreover, as the number of endpoints which must be simultaneously serviced by the bulk data distribution increases, network bandwidth demands are concomitantly increased. Specification, page 3, lines 17-19. This complicates scalability of the bulk distribution systems. Specification, page 3, line 20.

Therefore, a need exists in the art for a bulk distribution mechanism that can transfer large amounts of data between network connected subsystems (or nodes) while maintaining scalability. Specification, page 4, lines 1-3. Additionally, there is a need in such distribution mechanisms for methods and apparatus to distribute bulk data to a multiplicity of endpoints and to collect bulk data, including large log files, from the endpoints. Specification, page 4, lines 3-5.

The aforementioned needs are addressed by the present invention. Specification, page 5, line 3. Accordingly, there is provided, in a first form, a connection scheduling method. Specification, page 5, line 4. The method determines if a job is available for scheduling. Specification, page 5, lines 4-5. It is also determined if a session for effecting an execution the job is available. Specification, page 5, lines 5-6. The session is included in a pool of sessions, in which the pool of sessions has a preselected one of a set of priority levels. Specification, page 5, lines 6-8. The preselected priority level corresponds to a priority level of the job being scheduled for execution. Specification, page 5, lines 8-9. If available, the session is launched to effect the execution of the job. Specification, page 5, lines 9-10.

VI. <u>ISSUE</u>

A. Are claims 1-3, 5, 12-14, 16, 23-25 and 27 properly rejected under 35 U.S.C. §102(e) as being anticipated by Williams (U.S. Patent No. 6,411,982)?

- B. Are claims 4, 6-7, 15, 17-18, 26 and 28-29 properly rejected under 35 U.S.C. §103(a) as being unpatentable over Williams?
- C. Are claims 8-9, 19-20 and 30-31 properly rejected under 35 U.S.C. §103(a) as being unpatentable over Williams in view of Threlkeld (U.S. Patent No. 6,502,121)?
- D. Are claims 10-11, 21-22 and 32-33 properly rejected under 35 U.S.C. §103(a) as being unpatentable over Williams in view of Threlkeld and in further view of Hlasnik et al. (U.S. Patent No. 5,925,096) (hereinafter "Hlasnik")?

VII. GROUPING OF CLAIMS

Claims 1, 12 and 23 form a first group.

Claims 2, 13 and 24 form a second group.

Claims 3, 14 and 25 form a third group.

Claims 4, 15 and 26 form a fourth group.

Claims 5, 16 and 27 form a fifth group.

Claims 6, 17 and 28 form a sixth group.

Claims 7, 18 and 29 form a seventh group.

Claims 8, 19 and 30 form an eighth group.

Claims 9, 20 and 31 form a ninth group.

Claims 10, 21 and 32 form a tenth group.

Claims 11, 22 and 33 form an eleventh group.

The reasons for these groupings are set forth in Appellants' arguments in Section VIII.

VIII. ARGUMENT

A. Claims 1-3, 5, 12-14, 16, 23-25 and 27 are not properly rejected under 35 U.S.C. §102(e) as being anticipated by Williams.

The Examiner has rejected claims 1-3, 5, 12-14, 16, 23-25 and 27 under 35 U.S.C. §102(e) as being anticipated by Williams. Paper No. 13, page 2. Appellants respectfully traverse these rejections for at least the reasons stated below.

For a claim to be anticipated under 35 U.S.C. §102, each and every claim limitation <u>must</u> be found in the cited prior art reference and arranged as required by the claim. M.P.E.P. §2131.

Appellants respectfully assert that Williams does not disclose "determining, in response to said step of determining if said job is available, if a session is available, wherein said session is included in a pool of sessions, said pool of sessions having a preselected one of a set of priority levels corresponding to a priority level of said job and wherein said session effects an execution of said job" as recited in claim 1 and similarly in claims 12 and 23. The Examiner cites column 2, line 58 - column 3, line 2 and column 3, lines 10-26 of Williams as disclosing the above-cited claim limitation. Paper No. 13, page 3. Appellants respectfully traverse and assert that Williams instead discloses scheduling task requests in a priority-order queue if the task requests are to be scheduled within a pre-specified time interval. Williams further discloses that when an execution entry in an in-service queue is empty, the highest priority task request in the priority-order queue may be transferred to the inservice queue. However, this language does not disclose determining if a session is available. Further, this language does not disclose determining if a session is available in response to determining if a job is available. Further, this language does not disclose, at least, a session included in a pool of sessions having a preselected one

of a set of priority levels corresponding to a priority level of a job. Instead, Williams only discloses scheduling task requests in a priority-order queue in sorted time order. Further, this language does not disclose where the session effects an execution of the job. Thus, Williams does not disclose all the limitations of claims 1, 12 and 23, and thus Williams does not anticipate claims 1, 12 and 23. M.P.E.P. § 2131.

Appellants further assert that Williams does not disclose "launching said session to effect said execution of said job, if said session is available" as recited in claim 1 and similarly in claims 12 and 23. The Examiner cites column 3, lines 19-32 of Williams as disclosing the above-cited claim limitation. Paper No. 13, page 3. Appellants respectfully traverse and assert that Williams instead discloses transferring the highest priority task request from a priority-ordered queue to the in-service queue if an available execution entry is discovered in the in-service queue. Williams further discloses that when a task request completes execution, it is removed from the inservice queue. This language does not disclose launching a session. The in-service queue entries are not taught to be "launchable." They are "slots" for holding task requests that may be executed concurrently. Williams, column 2, lines 61-63. Necessarily, this language does not disclose launching the session to effect the execution of the job. Further, this language does not disclose launching the session to effect the execution of the job if the session is available. Thus, Williams does not disclose all the limitations of claims 1, 12 and 23, and thus Williams does not anticipate claims 1, 12 and 23. M.P.E.P. §2131.

The Examiner states, in response to Appellants' above argument:

[R]ecitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to

the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Paper No. 13, page 8.

Appellants respectfully assert that the Examiner's assertion that there is no structural difference between Williams and the claimed invention is improper since the above-cited claim is directed to a method claim and not a structure claim. The Examiner is reminded that the Examiner may not simply ignore language in the claims. All words in a claim must be considered in judging the patentability of that claim against the prior art. See In re Wilson, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970). Appellants have indicated above that there is language in the claims that are not disclosed in Williams. The Examiner cannot conclude that Williams discloses these limitations based on his own subjective opinion. See In re Lee, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). Therefore, the Examiner has not presented a prima facie case of anticipation for rejecting claims 1, 12 and 23. M.P.E.P. §2143.

Further, the Examiner's use of *In re Casey* and *In re Otto* with respect to the rejection of the above-cited claim limitation is improper. *In re Casey* stands for the proposition that the use of a claimed device is not material to the issue of patentability of the claimed device. *In re Casey*, 152 U.S.P.Q. 235, 238 (C.C.P.A. 1967). *In re Otto* stands for the proposition that it is improper to rely on a method concept to distinguish a structure claim over the prior art. *In re Otto*, 136 U.S.P.Q. 458, 459 (C.C.P.A. 1963). As stated above, the above-recited claim limitation is recited from a method claim and not a structure or device claim. Further, the Examiner has not provided any evidence that Appellants' system is disclosed in Williams. Hence, the Examiner's use of *In re Casey* and *In re Otto* in connection with the rejection of the above-cited claim limitation is improper.

Further, Appellants note that *In re Otto*, upon which the Examiner relies, precedes *Graham v. John Deere Co.*, 383 U.S. 1, 148 U.S.P.Q. 459 (1966). Accordingly, the holdings of *Graham* may overrule the holdings of *In re Otto*.

Appellants further assert that Williams does not disclose "wherein said session comprises a thread" as recited in claim 2 and similarly in claims 13 and 24. The Examiner cites column 1, lines 47-54 and column 4, lines 21-25 of Williams as disclosing the above-cited claim limitation. Paper No. 13, page 3. Appellants respectfully traverse and assert that Williams instead discloses using threads to schedule task requests. While this language discloses threads, this language does not disclose a session comprising a thread. Thus, Williams does not disclose all the limitations of claims 2, 13 and 24, and thus Williams does not anticipate claims 2, 13 and 24. M.P.E.P. §2131.

Further, the Examiner in connection with the rejection to the above-cited claim limitation, asserts that Williams discloses that task requests are executed within a queued session and thus a session comprises a thread. Paper No. 13, page 8. Appellants respectfully traverse. There is no language in the cited passage of Williams to support such an assertion. The Examiner must provide a basis in fact and/or technical reasoning to support the assertion that Williams discloses that task requests are executed within a queued session and thus a session comprises a thread. Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). The Examiner must provide extrinsic evidence that must make clear that Williams discloses that task requests are executed within a queued session and thus a session comprises a thread. In re Robertson, 169 F.3d 743, 745 (Fed. Cir. 1999). Since the Examiner has not supported the assertion that Williams discloses that task requests are executed within a queued session and thus a session comprises a thread, the Examiner has not presented a prima facie case of anticipation for rejecting claims 2, 13 and 24. M.P.E.P. §2131.

Appellants further assert that Williams does not disclose "creating a connection to a target system for said execution of said job" as recited in claim 3 and similarly in claims 14 and 25. The Examiner cites Figure 5 and column 4, lines 21-37

of Williams as disclosing the above-cited claim limitation. Paper No. 13, page 3. Appellants respectfully traverse and assert that Williams instead discloses providing a thread to query for a task request. However, this language does not disclose a target system. Further, this language does not disclose creating a connection to the target system. Neither does this language disclose creating a connection to a target system for the execution of the job. Thus, Williams does not disclose all the limitations of claims 3, 14 and 25, and thus Williams does not anticipate claims 3, 14 and 25. M.P.E.P. §2131.

Further, the Examiner in connection with the rejection to the above-cited claim limitation, asserts that Appellants' argument fails to comply with 37 C.F.R. §1.111(b). Paper No. 13, page 8. Appellants respectfully disagree as Appellants have specifically pointed out which limitations are not disclosed by Williams.

Appellants further assert that Williams does not disclose "launching an error-handling thread in response to an error condition, said error-handling thread releasing said session" as recited in claim 5 and similarly in claims 16 and 27. The Examiner cites column 3, lines 29-37 of Williams as disclosing the above-cited claim limitation. Paper No. 13, page 3. Appellants respectfully traverse and assert that Williams instead discloses determining whether the task request's next execution time exceeds the pre-specified time interval. Williams further discloses that if the task request's next execution time does not exceed the pre-specified time interval, the task request is re-entered into the priority-ordered queue in sorted position. Williams further discloses that if the task request's next execution time does exceed the pre-specified time interval, the task request is discharged from memory. This language does not disclose launching an error-handling thread. Further, this language does not disclose launching an error-handling thread in response to an error condition. Further, this language does not disclose the error-handling thread releasing the session. Thus, Williams does not

disclose all the limitations of claims 5, 16 and 27, and thus Williams does not anticipate claims 5, 16 and 27. M.P.E.P. §2131.

Further, the Examiner in connection with the rejection to the above-cited claim limitation, asserts that Appellants' argument fails to comply with 37 C.F.R. §1.111(b). Paper No. 13, page 8. Appellants respectfully disagree as Appellants have specifically pointed out which limitations are not disclosed by Williams.

As a result of the foregoing, Appellants respectfully assert that not each and every claim limitation was found with Williams, and thus claims 1-3, 5, 12-14, 16, 23-25 and 27 are not anticipated by Williams.

B. Claims 4, 6-7, 15, 17-18, 26 and 28-29 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Williams.

The Examiner has rejected claims 4, 6-7, 15, 17-18, 26 and 28-29 under 35 U.S.C. §103(a) as being unpatentable over Williams. Paper No. 13, page 4. Appellants respectfully traverse these rejections for at least the reasons stated below.

Appellants respectfully assert that Williams does not teach or suggest "determining if said connection is an existing connection, and wherein said step of creating said connection is performed if said connection is not an existing connection" as recited in claim 4 and similarly in claims 15 and 26. The Examiner admits that Williams does not teach the limitations of claim 4. Paper No. 13, page 4. The Examiner looks to Sullivan to cure the omissions in Williams. *Id.* It is noted that the Examiner relies on Sullivan in response to the Appellants' traversal of a taking of Official Notice in Paper No. 6. See Paper No. 10, page 9. Only the express limitations of claims 4, 15 and 26 are considered; the limitations incorporated in these claims through their respective dependencies have been addressed above.

The Examiner asserts that Sullivan "discloses if a connection is not being made, assuming a connection is already established for a network connection." *Id.*

(citing Sullivan, col. 8, lines 40-57). As an initial matter, this assertion demonstrates that Sullivan is not introduced as directly corresponding evidence of the common knowledge previously alleged. See Paper No. 13, page 4 (stating that "a connection will be created if it is not already connected.") Thus, the Examiner's reliance on Sullivan raises new issues. Moreover, claims 4, 15 and 26 do not recite an operation of assuming a connection is already established. Thus, the Examiners allegation does not address the limitation of claim 4. Moreover, Sullivan is directed to a computer network interface for distributing data over multiple physical links to increase transmission bandwidth. Column 1, lines 9-11. Sullivan teaches, in particular, that when the IP stack in a computer wishes to send an outbound packet to the remote network, if the packet is recognized as a connection establishment packet it allocates a record in a table to remember the physical link (i.e. modem) to which the connection is assigned. Column 8, lines 1-18. Conversely, Sullivan teaches that if the packet is not a connection establishment packet, the computer assumes that the connection is already established and that a table entry has already been created for the connection. Column 8, lines 1-18. Plainly, the teaching relied upon by the Examiner does not disclose determining if a connection is an existing connection, and creating the connection if it is not an existing connection. Consequently, neither Williams, Sullivan or the combination thereof teach or suggest all of the limitations of claims 4, 15 and 26.

The Examiner also contends that it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Sullivan's use of creating a connection only when not already connected because it would be redundant to connect while already being connected. Paper No. 13, page 4. Again the allegations do not address the limitation of claims 4, 15 and 26. The claims recite determining if a connection is an existing connection.

Moreover, the Examiner's motivation does not address why it would be desirable to modify Williams to incorporate connections in the first instance. This deficiency exemplifies the requirement that a motivation or suggestion to combine references must be found in objective evidence arising in the references themselves, the nature of the problem to be solved, or the knowledge of persons of ordinary skill in the art. *See* M.P.E.P. §2143.01.

Moreover, the Examiner must submit objective evidence and not rely on his own subjective opinion in support of modifying Williams to create a connection if the connection is not an existing connection (Examiner admits that Williams does not teach this limitation). *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). There is no suggestion in Williams of creating a connection. Neither is there any suggestion in Williams of determining if a connection is an existing connection. Since the Examiner has not submitted objective evidence for modifying Williams to create a connection if the connection is not an existing connection, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 4, 15 and 26. *Id*.

Further, the Examiner must submit objective evidence and not rely on his own subjective opinion in support of combining Williams, which teaches a scheduling governor that regulates the number of scheduled tasks that are executed concurrently over a network computer system (Abstract), with Sullivan, which teaches controlling data transmissions between a remote node and a local node of a computer communications network (Abstract). *Id.* There is no suggestion in Williams of controlling data transmissions. Neither is there any suggestion in Williams of controlling data transmissions between a remote node and a local node. Since the Examiner has not submitted objective evidence for modifying Williams with Sullivan, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 4, 15 and 26. *Id.*

As a result of the foregoing, Appellants respectfully assert that the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 4, 15 and 26. M.P.E.P. §2143.

Appellants further assert that Williams does not teach or suggest "changing value of a job state from a first value to a second value in response to said launching of said error handling thread" as recited in claim 6 and similarly in claims 17 and 28. The Examiner admits that Williams does not teach the limitations of claim 6. Paper No. 13, page 4. The Examiner states:

Official Notice has been taken that the 'value' of the job state changes when the task is discharged from memory (at least col. 3, lines 29-37). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement using a job state value to indicate that the task is 'DISCHARGED', 'PENDING', etc. because this could enhance visibility of the exact status of the requested task. For example, Threlkeld discloses changing value of a job state from a first value to a second value in response to said launching of said error handling thread (at least Threlkeld col. 8, lines 15-49). Paper No. 13, pages 4-5.

As an initial matter, the claim does not recite changing a value of a job state..."when a task is discharged from memory." Thus, the taking of Official Notice does not address the claim as recited. Further, Appellants respectfully traverse the Official Notice that Williams teaches changing the value of a job state when task request is discharged from memory. Williams only teaches that the task request is discharged from memory in step 209. Column 3, lines 36-37. The cited passage in Williams does not teach a job state or changing a value of a job state when the task request is discharged from memory. The Examiner is merely relying upon his own subjective opinion which is insufficient to support modifying Williams to change the value of a job state. The Examiner must submit objective evidence to modify Williams to change the value of a job state. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

Moreover, the Examiner's motivation ("because this could enhance visibility of the exact status of the requested task") does not address why it would be desirable to modify Williams to change the value of a job state in response to the launching of the error handling thread. This deficiency exemplifies the requirement that a motivation or suggestion to combine references must be found in objective evidence arising in the references themselves, the nature of the problem to be solved, or the knowledge of persons of ordinary skill in the art. See M.P.E.P. §2143.01.

Moreover, the Examiner must submit objective evidence and not rely on his own subjective opinion in support of modifying Williams to change the value of a job state in response to the launching of an error handling thread (Examiner admits that Williams does not teach this limitation). *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). There is no suggestion in Williams of a job state. Neither is there any suggestion in Williams of changing the value of a job state. Neither is there any suggestion in Williams of an error handling thread. Neither is there any suggestion in Williams of changing the value of a job state in response to the launching of an error handling thread. Since the Examiner has not submitted objective evidence for modifying Williams to change the value of a job state in response to the launching of an error handling thread, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 6, 17 and 28. *Id*.

Further, the Examiner cites Threlkeld as support for the Official Notice. The Examiner must submit objective evidence and not rely on his own subjective opinion in support of combining Williams, which teaches a scheduling governor that regulates the number of scheduled tasks that are executed concurrently over a network computer system (Abstract), with Threlkeld, which teaches a storage device for maintaining entity information including period information indicative of information processing periods for the entity (Abstract). *Id.* There is no suggestion in Williams of maintaining entity information. Neither is there any suggestion in Williams of maintaining entity information including period information. Neither is there any

suggestion in Williams of maintaining entity information including period information indicative of information processing periods for the entity. Since the Examiner has not submitted objective evidence for modifying Williams with Threlkeld, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 6, 17 and 28. *Id*.

As a result of the foregoing, Appellants respectfully assert that the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 6, 17 and 28. M.P.E.P. §2143.

Appellants further assert that Williams does not teach or suggest "wherein said first value signals that said job is available for scheduling" as recited in claim 7 and similarly in claims 18 and 29. The Examiner cites column 3, lines 29-35 of Williams as teaching the above-cited claim limitation. Paper No. 13, page 5. The Examiner further asserts that Williams teaches the limitation of claims 7, 18 and 29 in disclosing that the job is reentered in the queue when there is no error. Paper No. 13, page 5. Appellants respectfully traverse and assert that Williams instead teaches that when a task request completes execution, it is removed form the in-service queue. Williams further teaches that if its next execution time does not exceed the prespecified time interval, the task request is re-entered into the priority-ordered queue and the cycle repeats. Williams further teaches that if its next execution time does exceed the pre-specified time interval, the task request is discharged from memory. This language is silent regarding errors. The Examiner cannot use Williams' silence as to errors, to engraft a condition of "no error" in conjunction with reentering the task into the queue. Therefore, the Examiner has not presented a prima facie case of obviousness, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. In re Rouffet, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

As a result of the foregoing, Appellants respectfully assert that there are numerous claim limitations not taught or suggested in the cited prior art, and thus the

Examiner has not presented a *prima facie* case of obviousness for rejecting claims 4, 6-7, 15, 17-18, 26 and 28-29 as being unpatentable over Williams. M.P.E.P. §2143.

C. Claims 8-9, 19-20 and 30-31 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Williams in view of Threlkeld.

The Examiner has rejected claims 8-9, 19-20 and 30-31 under 35 U.S.C. §103(a) as being unpatentable over Williams in view of Threlkeld. Paper No. 13, page 5. Appellants respectfully traverse these rejections for at least the reasons stated below.

1. The Examiner has not presented any objective evidence for combining Williams with Threlkeld.

A prima facie showing of obviousness requires the Examiner to establish, inter alia, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner must provide a motivation or suggestion to combine or modify the prior art reference to make the claimed inventions. M.P.E.P. §2142. The showings must be clear and particular. In re Lee, 277 F. 3d 1338, 1343, 61 U.S.P.Q. 2d 1430, 1433-34 (Fed. Cir. 2002); In re Kotzab, 217 F. 3d 1365, 1370, 55 U.S.P.Q. 2d 1313, 1317 (Fed. Cir. 2000); In re Dembiczak, 50 U.S.P.Q. 2d. 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. Id.

The Examiner's motivation for modifying Williams with Threlkeld (1) to retry the steps of determining if a job is available for scheduling, determining if a session is available, and launching the session, in response to an error condition, as recited in claim 8 and similarly in claims 19 and 30, and (2) where the step of retrying is repeated until a predetermined time interval has elapsed, as recited in claim 9 and similarly in claims 20 and 31, is to "allow a task to be completed if it is not completed the first time by relaunching Williams' whole process over again, thereby completing

the requested task." Paper No. 13, page 5. The Examiner's motivation is insufficient to support a *prima facie* case of obviousness since it is merely the Examiner's subjective opinion.

The Examiner must submit objective evidence and not rely on his own subjective opinion in support of modifying Williams to allow a task to be completed if it is not completed the first time by relaunching Williams' whole process over again, thereby completing the requested task (Examiner's motivation). *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). There is no suggestion in Williams of allowing a task to complete if it has not been completed. In fact, Williams teaches away from allowing a task to complete if it has not been completed. Williams teaches that if the task requests' next execution time exceeds the pre-specified time interval, the task request is discharged from memory. Column 3, lines 36-38. Hence, Williams seems to suggest that if a task is expected to not have enough time to complete then it is discharged from memory. Further, there is no suggestion in Williams of relaunching a process. Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 8-9, 19-20 and 30-31. *Id*.

Further, the Examiner must submit objective evidence and not rely on his own subjective opinion in support of combining Williams, which teaches a scheduling governor that regulates the number of scheduled tasks that are executed concurrently over a network computer system (Abstract), with Threlkeld, which teaches a storage device for maintaining entity information including period information indicative of information processing periods for the entity (Abstract). *Id.* There is no suggestion in Williams of maintaining entity information. Neither is there any suggestion in Williams of maintaining entity information including period information. Neither is there any suggestion in Williams of maintaining entity information including period information including p

Examiner has not submitted objective evidence for modifying Williams with Threlkeld, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 8-9, 19-20 and 30-31. *Id*.

Further, the Examiner must submit objective evidence and not rely on his own subjective opinion in support of modifying Williams to retry the steps of determining if a job is available for scheduling, determining if a session is available, and launching the session, in response to an error condition (Examiner admits that Williams does not teach this limitation). *Id.* There is no suggestion in Williams of having an error condition. Neither is there any suggestion in Williams of retrying particular steps, e.g., determining if a job is available for scheduling, determining if a session is available, launching the session, in response to an error condition. Since the Examiner has not submitted objective evidence for modifying Williams to retry the steps of determining if a job is available for scheduling, determining if a session is available, and launching the session, in response to an error condition, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 8, 19 and 30. *Id.*

Further, the Examiner must submit objective evidence and not rely on his own subjective opinion in support of modifying Williams to have the step of retrying being repeated until a predetermined time interval has elapsed (Examiner admits that Williams does not teach this limitation). *Id.* As stated above, there is no suggestion in Williams of having an error condition. Neither is there any suggestion in Williams of retrying particular steps, e.g., determining if a job is available for scheduling, determining if a session is available, launching the session, in response to an error condition. Neither is there any suggestion in Williams of having the step of retrying being repeated until a predetermined time interval has elapsed. Since the Examiner has not submitted objective evidence for modifying Williams to have the step of retrying being repeated until a predetermined time interval has elapsed, the Examiner

has not presented a *prima facie* case of obviousness for rejecting claims 9, 20 and 31. *Id.*

As a result of the foregoing, Appellants respectfully assert that the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 8-9, 19-20 and 30-31. M.P.E.P. §2143.

2. Williams and Threlkeld, taken singly or in combination, do not teach or suggest the following claim limitations.

Appellants respectfully assert Williams and Threlkeld, taken singly or in combination, do not teach or suggest "the step of retrying said steps of determining if a job is available for scheduling, determining if a session is available, and launching said session, in response to an error condition" as recited in claim 8 and similarly in claims 19 and 30. The Examiner cites column 8, lines 30-49 and Figure 7A of Threlkeld as teaching the above-cited claim limitation. Paper No. 13, page 5. Appellants respectfully traverse and assert that Threlkeld instead teaches that a job may be relaunched under certain conditions. However, this language does not teach retrying the steps of determining if a job is available for scheduling, determining if a session if available, and launching the session, in response to an error condition. Neither Williams nor Threlkeld, taken singly or in combination, teach or suggest retrying the steps of determining if a job is available for scheduling, determining if a session if available, and launching the session, in response to an error condition. Therefore, the Examiner has not presented a prima facie case of obviousness, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. In re Rouffet, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Appellants further assert that Williams and Threlkeld, taken singly or in combination, do not teach or suggest "wherein said step of retrying is repeated until a predetermined time interval has elapsed" as recited in claim 9 and similarly in claims 20 and 31. The Examiner cites column 8, lines 30-49 and Figure 7B of

Threlkeld as teaching the above-cited claim limitation. Paper No. 13, page 6. As noted above, Threlkeld teaches that a job may be relaunched under certain conditions. However, this language does not teach repeating the step of retrying the steps of determining if a job is available for scheduling, determining if a session is available, and launching the session, in response to an error condition until a predetermined time interval has elapsed. Neither Williams nor Threlkeld, taken singly or in combination, teach or suggest repeating the step of retrying the steps of determining if a job is available for scheduling, determining if a session is available, and launching the session, in response to an error condition until a predetermined time interval has elapsed. Therefore, the Examiner has not presented a *prima facie* case of obviousness, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

As a result of the foregoing, Appellants respectfully assert that there are numerous claim limitations not taught or suggested in the cited prior art, and thus the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 8-9, 19-20 and 30-31 as being unpatentable over Williams in view of Threlkeld. M.P.E.P. §2143.

D. Claims 10-11, 21-22 and 32-33 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Williams in view of Threlkeld and in further view of Hlasnik

The Examiner has rejected claims 10-11, 21-22 and 32-33 under 35 U.S.C. §103(a) as being unpatentable over Williams in view of Threlkeld and in further view of Hlasnik. Paper No. 13, page 6. Appellants respectfully traverse these rejections for at least the reasons stated below.

1. The Examiner has not presented any objective evidence for combining Williams with Threlkeld and Hlasnik.

As stated above, a *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner must provide a motivation or suggestion to combine or modify the prior art reference to make the claimed inventions. M.P.E.P. §2142. The showings must be clear and particular. *In re Lee*, 277 F. 3d 1338, 1343, 61 U.S.P.Q. 2d 1430, 1433-34 (Fed. Cir. 2002); *In re Kotzab*, 217 F. 3d 1365, 1370, 55 U.S.P.Q. 2d 1313, 1317 (Fed. Cir. 2000); *In re Dembiczak*, 50 U.S.P.Q. 2d. 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. *Id*.

The Examiner's motivation for modifying Williams with Threlkeld and Hlasnik (1) to register a callback method in response to an expiry of a predetermined time interval, as recited in claim 10 and similarly in claims 21 and 32, and (2) performing the steps of: determining if a job is available for scheduling, determining if a session is available and launching the session, in response to an invoking of the callback method by a target system, as recited in claim 11 and similarly in claims 22 and 33, is "because this would allow the client application to perform its function and then return control to Williams' host computer (target system) when the time does expire." Paper No. 13, page 7. The Examiner's motivation is insufficient to support a prima facie case of obviousness since it is merely the Examiner's subjective opinion.

The Examiner's motivation does not address why it would be desirable to modify Williams (1) to register a callback method in response to an expiry of a predetermined time interval or (2) to perform the steps of: determining if a job is available for scheduling, determining if a session is available and launching the session, in response to an invoking of the callback method by a target system. This

deficiency exemplifies the requirement that a motivation or suggestion to combine references must be found in objective evidence arising in the references themselves, the nature of the problem to be solved, or the knowledge of persons of ordinary skill in the art. See M.P.E.P. §2143.01. Consequently, the Examiner's motivation is insufficient to support a prima facie case of obviousness for rejecting claims 10-11, 21-22 and 32-33. Id.

Further, there is no suggestion in Williams of having a client application to perform its function and then return control to Williams' host computer when the time does expire (Examiner's motivation). Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 8-9, 19-20 and 30-31. *Id*.

Further, the Examiner must submit objective evidence and not rely on his own subjective opinion in support of combining Williams, which teaches a scheduling governor that regulates the number of scheduled tasks that are executed concurrently over a network computer system (Abstract), with Threlkeld, which teaches a storage device for maintaining entity information including period information indicative of information processing periods for the entity (Abstract), along with Hlasnik, which teaches controlling system resource access to a computer application program in an otherwise synchronous, non-preemptive operating environment (Abstract). *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). There is no suggestion in Williams of controlling system resource access to a computer application program. Neither is there any suggestion in Williams of controlling system resource access to a computer application program in an otherwise synchronous, non-preemptive operating environment. Since the Examiner has not submitted objective evidence for modifying Williams with Threlkeld and Hlasnik, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 10-11, 21-22 and 32-33. *Id*.

Further, the Examiner must submit objective evidence and not rely on his own subjective opinion in support of modifying Williams to register a callback method in response to an expiry of a predetermined time interval (Examiner admits that Williams does not teach this limitation). *Id.* There is no suggestion in Williams of registering a callback method. Neither is there any suggestion in Williams of registering a callback method in response to an expiry of a predetermined time interval. Since the Examiner has not submitted objective evidence for modifying Williams to register a callback method in response to an expiry of a predetermined time interval, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 10, 21 and 32. *Id.*

Further, the Examiner must submit objective evidence and not rely on his own subjective opinion in support of modifying Williams to perform the steps of: determining if a job is available for scheduling, determining if a session is available and launching the session, in response to an invoking of the callback method by a target system (Examiner admits that Williams does not teach this limitation). Id. As stated above, there is no suggestion in Williams of registering a callback method. Neither is there any suggestion in Williams of performing the steps of: determining if a job is available for scheduling, determining if a session is available and launching the session, in response to an invoking of the callback method. Neither is there any suggestion in Williams of performing the steps of: determining if a job is available for scheduling, determining if a session is available and launching the session, in response to an invoking of the callback method by a target system. Since the Examiner has not submitted objective evidence for modifying Williams to perform the steps of: determining if a job is available for scheduling, determining if a session is available and launching the session, in response to an invoking of the callback method by a target system, the Examiner has not presented a prima facie case of obviousness for rejecting claims 11, 22 and 33. Id.

As a result of the foregoing, Appellants respectfully assert that the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 10-11, 21-22 and 32-33. M.P.E.P. §2143.

2. Williams, Threlkeld and Hlasnik, taken singly or in combination, do not teach or suggest the following claim limitations.

Appellants respectfully assert that Williams, Threlkeld, and Hlasnik, taken singly or in combination, do not teach or suggest "registering a callback method in response to an expiry of said predetermined time interval" as recited in claim 10 and similarly in claims 21 and 32. The Examiner cites the Abstract, column 6, lines 48-55 and column 6, line 62 to column 7, line 10 of Hlasnik as teaching the above-cited claim limitation. Paper No. 13, page 6. Appellants respectfully traverse and assert that Hlasnik instead teaches a callback registration means for registering a callback address. The callback address may be used by a periodic preemption mechanism to call the client application. However, there is no language in the cited passage that the callback address is registered in response to an expiry of a predetermined time interval. Therefore, the Examiner has not presented a *prima facie* case of obviousness, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Appellants further assert that Williams, Threlkeld and Hlasnik, taken singly or in combination, do not teach or suggest "wherein said steps of determining if a job is available for scheduling, determining if a session is available, and launching said session are performed in response to an invoking of said callback method by a target system, said target system for execution of said job" as recited in claim 11 and similarly in claims 22 and 33. The Examiner cites the Abstract, column 6, lines 48-55 and column 6, line 62 to column 7, line 10 of Hlasnik as teaching the above-cited claim limitation. Paper No. 13, page 7. Instead, as stated above, Hlasnik teaches registering a callback address which may be used by a periodic preemptive

mechanism to call the client application at its callback address. The callback address taught in Hlasnik is essentially used as a pointer to an address. Thus, Hlasnik does not teach invoking a callback method by a target system. Further, Williams, Threlkeld and Hlasnik, do not teach or suggest the steps of determining if a job is available for scheduling, determining if a session is available, and launching the session. Further, Williams, Threlkeld and Hlasnik, do not teach or suggest performing the steps of determining if a job is available for scheduling, determining if a session is available, and launching the session, in response to an invoking of the callback method by a target system. Further, Williams, Threlkeld and Hlasnik, do not teach or suggest a target system for execution of the job. Therefore, the Examiner has not presented a *prima facie* case of obviousness, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

As a result of the foregoing, Appellants respectfully assert that there are numerous claim limitations not taught or suggested in the cited prior art, and thus the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 10-11, 21-22 and 32-33 as being unpatentable over Williams in view of Threlkeld. M.P.E.P. §2143.

IX. CONCLUSION

For the reasons noted above, the rejections of claims 1-33 are in error. Appellants respectfully request reversal of the rejections and allowance of claims 1-33.

Respectfully submitted,

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APPENDIX

1. A connection scheduling method comprising the steps of: determining if a job is available for scheduling;

determining, in response to said step of determining if said job is available, if a session is available, wherein said session is included in a pool of sessions, said pool of sessions having a preselected one of a set of priority levels corresponding to a priority level of said job and wherein said session effects an execution of said job; and

launching said session to effect said execution of said job, if said session is available.

- 2. The method of claim 1 wherein said session comprises a thread.
- 3. The method of claim 1 further comprising the step of creating a connection to a target system for said execution of said job.
- 4. The method of claim 3 further comprising the step of determining if said connection is an existing connection, and wherein said step of creating said connection is performed if said connection is not an existing connection.
- 5. The method of claim 1 further comprising a step of launching an error handling thread in response to an error condition, said error handling thread releasing said session.
- 6. The method of claim 5 further comprising the step of changing value of a job state from a first value to a second value in response to said launching of said error handling thread.

7. The method of claim 6 wherein said first value signals that said job is available for scheduling.

- 8. The method of claim 1 further comprising the step of retrying said steps of determining if a job is available for scheduling, determining if a session is available, and launching said session, in response to an error condition.
- 9. The method of claim 8 wherein said step of retrying is repeated until a predetermined time interval has elapsed.
- 10. The method of claim 9 further comprising the step of registering a callback method in response to an expiry of said predetermined time interval.
- 11. The method of claim 10 wherein said steps of determining if a job is available for scheduling, determining if a session is available, and launching said session are performed in response to an invoking of said callback method by a target system, said target system for execution of said job.
- A data processing system for connection scheduling comprising:
 circuitry operable for determining if a job is available for scheduling;

circuitry operable for determining, in response to said circuitry operable for determining if said job is available, if a session is available, wherein said session is included in a pool of sessions, said pool of sessions having a preselected one of a set of priority levels corresponding to a priority level of said job and wherein said session effects an execution of said job; and

circuitry operable for launching said session to effect said execution of said job, if said session is available.

13. The system of claim 12 wherein said session comprises a thread.

14. The system of claim 12 further comprising circuitry operable for creating a connection to a target system for said execution of said job.

- 15. The system of claim 14 further comprising circuitry operable for determining if said connection is an existing connection, and wherein said circuitry operable for creating said connection is operated if said connection is not an existing connection.
- 16. The system of claim 12 further comprising circuitry operable for launching an error handling thread in response to an error condition, said error handling thread releasing said session.
- 17. The system of claim 16 further comprising circuitry operable for changing value of a job state from a first value to a second value in response to said launching of said error handling thread.
- 18. The system of claim 17 wherein said first value signals that said job is available for scheduling.
- 19. The system of claim 12 further comprising circuitry operable for retrying said steps of determining if a job is available for scheduling, determining if a session is available, and launching said session, in response to an error condition.
- 20. The system of claim 19 wherein said circuitry operable for retrying is operated until a predetermined time interval has elapsed.
- 21. The system of claim 20 further comprising circuitry operable for registering a callback method in response to an expiry of said predetermined time interval.

22. The system of claim 21 wherein said circuitry operable for determining if a job is available for scheduling, determining if a session is available, and launching said session are operated in response to an invoking of said callback method by a target system, said target system for execution of said job.

23. A computer program product embodied in a machine readable storage medium, the program product for job scheduling comprising instructions for:

determining if a job is available for scheduling;

determining, in response to instructions for determining if said job is available, if a session is available, wherein said session is included in a pool of sessions, said pool of sessions having a preselected one of a set of priority levels corresponding to a priority level of said job and wherein said session effects an execution of said job; and

launching said session to effect said execution of said job, if said session is available.

- 24. The program product of claim 23 wherein said session comprises a thread.
- 25. The program product of claim 23 further comprising instructions for creating a connection to a target system for said execution of said job.
- 26. The program product of claim 25 further comprising instructions for determining if said connection is an existing connection, and wherein said instructions for creating said connection are performed if said connection is not an existing connection.
- 27. The program product of claim 23 further comprising instructions for launching an error handling thread in response to an error condition, said error handling thread releasing said session.

28. The program product of claim 27 further comprising instructions for changing

value of a job state from a first value to a second value in response to said launching

of said error handling thread.

29. The program product of claim 28 wherein said first value signals that said job

is available for scheduling.

30. The program product of claim 23 further comprising programming for

retrying said steps of determining if a job is available for scheduling, determining if a

session is available, and launching said session, in response to an error condition.

31. The program product of claim 30 wherein said instructions for retrying are

repeated until a predetermined time interval has elapsed.

32. The program product of claim 31 further comprising programming for

registering a callback method in response to an expiry of said predetermined time

interval.

33. The program product of claim 32 wherein said instructions for determining if

a job is available for scheduling, determining if a session is available, and launching

said session are executed in response to an invoking of said callback method by a

target system, said target system for execution said job.

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